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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,012	05/24/2000	Mohan Kalkunte	PI08339-9017	5213

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EXAMINER

WAHBA, ANDREW W

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 11/06/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/577,012

Applicant(s)

KALKUNTE ET AL.

Examiner

Andrew W Wahba

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 16-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-12 is/are rejected.
- 7) ☒ Claim(s) 7, 13, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-15, drawn to flow control or load balancing, classified in class 370, subclass 229.
 - II. Claims 16-29, drawn to link switching, classified in class 370, subclass 389.

The inventions are distinct, each from the other because: Claims 1-15, which form Group I, claim a network switch with a flow control unit that manages data from two data port interfaces and two different data rates. Claims 16-29, which form Group II, claim a method of switching links within a trunk group.

Because these inventions are distinct for the reasons given above and the search required for claims 16-29 is not required for claims 1-15, restriction for examination purposes as indicated is proper.

During a telephone conversation with Douglas Goldhush on 10/17/2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16-29 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 3, 6, 8, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Spinney et al. With specific regard to the applicant's claim of a network switch that comprises "at least one first port interface, said at least one first data port interface supporting a plurality of first data ports transmitting data at a first data rate;" and "at least one second port interface, said at least one first data port interface supporting a plurality of first data ports transmitting data at a second data rate;" Spinney et al discloses a controller that contains several interfaces the require the transfer of data at different data rates. The controller interfaces with a MAC device via an 8-bit parallel data path (column 3, lines 31-34). The controller also interfaces with a memory via a 56-bit bus (column 3, lines 37-41). In addition, the controller interfaces with control lines via a 14-bit bus (column 3, lines 42-43). The controller also interfaces with a line card processor at an unspecified rate (column 3, lines 50-51).

With specific regard to the next claim limitations of a network switch further comprising "a flow control unit;" and "wherein at least one of said first data ports are linked together with a plurality of ports on a second network switch forming a trunk group that is configured by the flow control unit to statistically distribute a data load transmitted across said trunk group," Spinney et al discloses one of the controllers several functions. Specifically, it provides programmable data rate limits for the transmission of data packets (column 7, lines 28-31).

4. Regarding dependent claim 2, the applicant claims "a CPU interface, said CPU interface configured to communicate with a CPU." The claim is further limited by "a communication channel, said communication channel for communicating data and messaging information between said at least one first data port interface, said at least one second data port interface and said CPU interface." Spinney et al discloses a processor in the controller. The processor performs six functions: two for inbound packet processing, two for outbound packet processing, one for to interface with a memory and one to interface with a line card processor (column 3, lines 54-58).

5. With regard to claim 3, that claims the further limitation that the "first data port interface is an Ethernet data port interface." Spinney et al presents a controller connected to an ethernet bus (column 2, line 68 – column 3, line 2).

6. Regarding the limitations of claim 6, "wherein said at least one first data port interface, said at least one second first data port interface, said CPU interface, and said communication channel are configured to perform layer two switching at line speed," the disclosure presented by Spinney et al is layer two switching (figure 4).

7. Regarding claim 8, the applicant claims the further limitation "wherein said CPU interface is configured to provide communication between said CPU and the communication channel, wherein the CPU is configured to program the operation of said network switch." Spinney et al discloses a processor in the controller. The processor performs six functions: two for inbound packet processing, two for outbound packet processing, one to interface with a memory and one to interface with a line card processor (column 3, lines 54-58).

8. Regarding claim 9, the applicant claims the further limitation "wherein said flow control unit is configured to statistically distribute a load across said trunk group through control over said trunk group." Spinney et al discloses one of the controllers several functions. Specifically, it provides programmable data rate limits for the transmission of data packets (column 7, lines 28-31).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 4, 5, 10, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spinney et al. With regard to claims 4, 10, 11, 12 and 13, changes in the data rate would have been obvious to one of ordinary skill in the art at the time that the invention was made. Increased data rates are a desirable feature of any communications device, as they are invariably a consideration that an engineer would take into account and maximize.

11. With respect to claim 5, the placement of the first data port interface, second data port interface, CPU interface and communication channel on a single integrated chip would have been obvious to one of ordinary skill in the art at the time that the invention

was made. The desire for smaller integrate electronic devices has and will continue to remain as an element that engineers consider in the development of electronics.

Allowable Subject Matter

12. Claims 7, 13, 14 and 15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W Wahba whose telephone number is (703) 305-4684. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Andrew Wahba
October 31, 2003

AW

Chau T. Nguyen

CHAU NGUYEN
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